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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,019	09/09/2003	Jerome P. Dattilo	58831US002	4044

32692 7590 03/30/2005

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EXAMINER	
DINH, PHUONG K	

ART UNIT	PAPER NUMBER
2839	

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/658,019	DATTILO ET AL.
	Examiner	Art Unit
	Phuong KT Dinh	2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4- 5, 7-8, 11 and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kandybowski (U. S. Patent 5,174,764).

Regarding claim 1, Kandybowski discloses a header connector 20 comprising: a header body 22 having a front wall 29, the front wall 29 having a plurality of first and second passageways 34 disposed between an internal surface and an external surface; a plurality of conductive pins 50 configured for insertion into the first passageways 34, each conductive pin 50 having a first end extending from the internal surface, an intermediate section disposed in the first passageway, and a surface mounting 28 extending from the external surface of the front wall 29 for surface mount contact 54, (figure 5), wherein the conductive pins 50 are not fully inserted into the first passageway (see figure 5) a plurality of shield blades 76 configured for insertion into the second passageways, each shield blade 76 having a first end extending from the internal surface, an intermediate section disposed in the second passageway, and a second end extending from the external surface of the front wall.

Regarding claim 4, Kandybowski discloses the conductive pin 50 moves longitudinally within the first passageways when the header connector 20 is assembled to a printed circuit board 120.

Regarding claim 5, Kandybowski discloses the shield blades 76 are fully inserted into the second passageways of the header body 22.

Regarding claim 7, Kandybowski discloses an interconnect system comprising: a printed circuit board 120 comprising a plurality of surface mount pads 122 and a plurality of conductive vias; and means for holding the header connector 20 to the printed circuit board 120, wherein when the header connector 20 is assembled to the printed circuit board 120, each conductive pin 50 of the header connector 20 move, in relation to the front wall 29 of the header body 22, longitudinally in the first passageway 34 to contact the surface mount pads and the second end of the shield blades 76 of the header connector mate with the conductive vias in the printed circuit board.

Regarding claim 8, Kandybowski discloses the means 78 for holding the header connector to the printed circuit board 120 is provided by frictional force created when the shield blades 76 mate with the conductive vias on the printed circuit board 120.

Regarding claim 11, Kandybowski discloses the shield blades 76 are fully inserted into the second passageways 34 of the header body 22.

Regarding claim 13, Kandybowski discloses a method of assembling an interconnect system comprising the steps of: providing a printed circuit board 120 comprising a plurality of surface mount pads 122 and a plurality of conductive vias; and assembling the header connector 20 to the printed circuit board 120 such that the shield

blades 76 in the header body 22 mate with the conductive vias in the printed circuit board and the conductive pins 50 in the header body move longitudinally to make contact with the surface mount pads 122 on the printed circuit board.

Regarding claim 14, Kandybowski discloses the step of holding the header connector to the printed circuit board 120.

Regarding claim 15, Kandybowski discloses frictional force created when the shield blades 76 mate with the conductive vias on the printer circuit board 120 holds the header connector to the printed board 120.

Regarding claim 16, Kandybowski discloses the shield blades 76 of the header connector are fully inserted into the second passageways 34 of the header body.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramey (U. S. Patent 6,231,391) in view of Bright (U. S. Patent 4,726,793).

5. Regarding claim 1, Ramey discloses a header connector 400 comprising: a header body 402 having a front wall 410, the front wall 410 having a plurality of first and second passageways 416, 418 disposed between an internal surface and an external surface 422, 424; a plurality of conductive pins 404 configured for insertion into the first passageways 416, each conductive pin 404 having a first end extending from the

internal surface, an intermediate section disposed in the first passageway 416, and a surface mounting 452 extending from the external surface of the front wall 410, wherein the conductive pins 410 are inserted into the first passageway a plurality of shield blades 406 configured for insertion into the second passageways 418, each shield blade 406 having a first end extending from the internal surface 422, an intermediate section disposed in the second passageway 418, and a second end extending from the external surface of the front wall 410. Terms "not fully inserted" sets for no clear limitation in absence of "pin moves when mounted" terms see claim 4. Randy discloses the claimed invention except for surface mount contact. Bright discloses the surface mount contact at figure 7a, Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Randy to provide the surface mount contact as taught by Bright so as to save expensive of forming holes in the printed circuit board.

Regarding claim 6, Ramey discloses the intermediate portion of the shield blade 406 has a generally right angle shield portion.

6. Claims 2 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Kandybowski in view of Bright (U. S. Patent 4,726,793).

Regarding claims 2 and 9, Kandybowski discloses the claimed invention except for the second end of the conductive pin does not contain a spring like element. Bright discloses the second end of the conductive pin does not contain a spring like element. Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Kandybowski to remove spring as taught by Bright so as to simplify contact.

7. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kandybowski in view of Bright (U. S. Patent 4,726,793).

Regarding claims 3 and 10, Kandybowski discloses the claimed invention except for the second end of the conductive pin is substantially flat. Bright discloses the conductive pin is substantially flat 60. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kandybowski to provide the conductive pin is substantially flat as taught by Bright so as better connection.

8. Claims 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramey in view of Kandybowski.

Regarding claim 7 and 12, Ramey discloses the claimed invention except for the header connector is assembled to the printed circuit board each conductive pin of the header connector move in relation to the front wall of the header body. Kandybowski discloses the header connector is assembled to the printed circuit board each conductive pin of the header connector move in relation to the front wall of the header body. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ramey to provide for the header connector is assembled to the printed circuit board each conductive pin of the header connector move in relation to the front wall of the header body as taught by Kandybowski so as to provide better connection.

Response to Arguments

9. Applicant, on the remarks, page 7, lines 1-3, argues that Kandybowski, figure 5, does not disclose a fully inserted terminal member. The Examiner respectfully disagrees. Because figure 5 near to the leadline 58 still has spaced which shows that its terminal is not fully insert compare to figure 6.

10. Applicant, on page 8, argues that Ranney in view of Bright do not provide a motivation or suggest for replacing the feed-through contacts of Ranney with eh surface mount contacts of Bright because it would require redesigning the board, the header and the pin to have surface contact. This is not persuasive. Because by surface mount contact can save requirement to form hole into printed circuit board. Moreover, by Randy figure 14a also show the mount contact. Page 9, applicant argues that the recite references do not provide a motivation or suggest for removing the spring element from the Kandybowski reference because the spring element is an integral part of the invention. The Examiner respectfully disagrees. The contact function properly even with no spring present just as the Bright contact functions without such spring.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong KT Dinh whose telephone number is 571-272-2090. The examiner can normally be reached on 8 -5, 5 days a week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571-272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PHUONG

Phuong Dinh
March 26, 2005